

Edward de Bono CoRT Thinking Programme

*There is not adequate theoretical recognition
that all which the school can do for pupils,
so far as their minds are concerned . . .
is to develop their ability to think.*

John Dewey (Democracy and Education. 1916)

The idea of teaching thinking directly as a subject in its own right may seem very obvious. And so it should. However, there have been various approaches developed over time to teach thinking, most of which have been an outgrowth of the natural ability to think.

The essence of the CoRT Thinking Method is to focus attention directly on different aspects of thinking and to crystalline these aspects into definite concepts and tools that can be used deliberately.

The three basic principles underlying CoRT Thinking are as follows:

- **Thinking is a skill that can be developed,**
- **Most practical thinking takes place in the perception stage.**
- **The tools method is used to teach thinking.**

CoRT Thinking in Schools

The CoRT Thinking material has been tested over a wide range of Student ages and ability. Since the material provides only a trigger and a framework for thinking practice it can be used over this wide range. The responses will of course be different even though the material remains the same.

Tools: Use & Understanding

The understanding of a tool is not the same as the use of a tool. The whole of our educational training is directed toward the idea that understanding has to come first and then use will follow. Unfortunately this is not necessarily so.

Teaching Method

The obvious purpose of the CoRT Thinking Lessons is to teach thinking as a direct skill. It is not much use instructing students to "think better" or to "think it out." This sort of instruction does not achieve much. Nor is it enough to have general discussion sessions in the hope that the students will abstract and then generalise useful thinking skills. Quite often the teaching problem has to be tackled in an oblique manner.

Teaching Points

In the thinking lessons the teacher has to be firmly in control of the class. Control cannot arise from superior knowledge because this is not a knowledge subject. Control cannot even arise from superior thinking ability, since the students may, from time to time, have better ideas than the teacher and it is no use pretending otherwise. Teachers are entitled to use whatever teaching methods they find most suitable for their classes. Nevertheless, it is worth setting out the basic CoRT approach to the teaching of thinking and contrasting it with some other approaches.

Teacher Variation

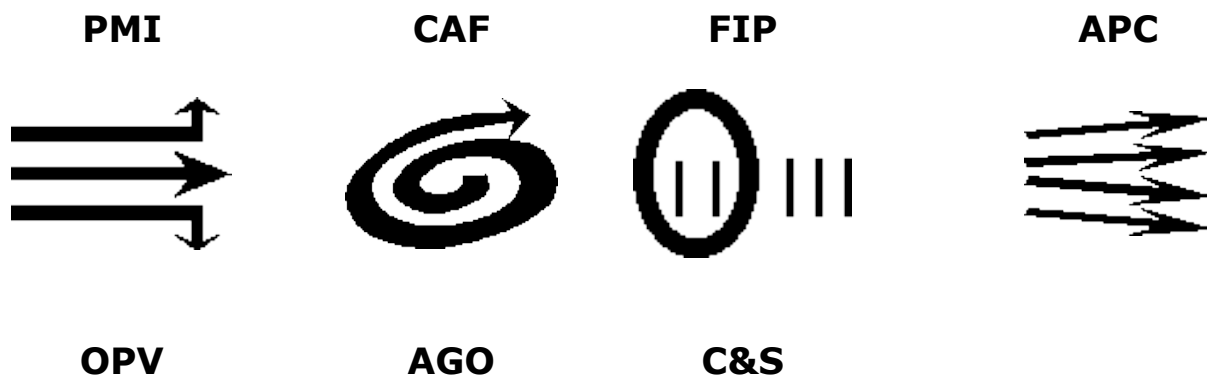
The CoRT Thinking Lessons are designed to provide the basic outline of a thinking course which treats thinking as a direct skill. These "bare bones" can be altered or fleshed out by the teacher as he or she wishes.

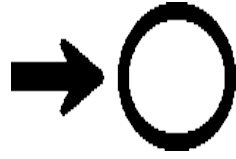
Teaching Motivation

CoRT Thinking Lessons can only be as good as the teacher who teaches them. CoRT Thinking Lessons are easy to teach. CoRT Thinking Lessons are difficult to teach. It depends on the teacher's expectations and teaching style. Dr de Bono compare this to riding a bicycle. A bicycle is difficult to ride until you learn how.

Creativity and Lateral Thinking

Lateral thinking is specifically concerned with the generation of new perceptions and new ideas. Lateral thinking involves changing perceptions and flexibility. There is an overlap with creativity since both are concerned with producing something new, but lateral thinking is a more precise definition of the process of changing perceptions: changing the way we look at things.





**CAF: Consider All
Factors**



THE FACTORS INVOLVED

CAF is a crystallisation of the process of trying to consider all the factors in a situation. This thinking operation is essentially related to action, decision, planning, judgement, and coming to a conclusion.

People naturally assume that they have considered all the factors, but usually their consideration is limited to the obvious ones. Turning CAF into a deliberate operation switches attention from the importance of the factors to looking around for all the factors. Clearly it is difficult to consider all the factors, so in the teaching situation consideration can be limited to the ten most important factors (or any other number), or the lesson can be taught in terms of:

- the factors affecting oneself**
- the factors affecting other people**
- the factors affecting society in general.**

This gives the lesson structure.

The emphasis of the lesson is on the factors that have been left out in a decision, plan, etc. In doing a CAF, students try to ensure that all important factors are listed in looking at each other's thinking, students try to spot which factors have been neglected. The CAF may be applied to one's own thinking as well as to the thinking of others: "What factors have I left out here?"

CAF differs from PMI in that PMI is a reaction to an idea whereas CAF is an exploration of a situation before coming up with an idea. The two do sometimes overlap because some of the factors that have to be considered obviously have a plus or minus aspect. The intention with a CAF is to be as complete as possible and to consider all factors rather than looking at them in terms of favourable or unfavourable factors.

CAF = Consider All Factors:

When you have to choose or make a decision or just think about something, there are always many factors that you have to consider. If you leave out some of these factors, your choice may seem right at the time but will later turn out to be wrong. When you are looking at other people's thinking, you can try and see what factors they have left out.



FIP: First Important Priorities

PMI: Plus, Minus,
Interesting



THE TREATMENT OF IDEAS

The PMI is a crystallisation of the open-minded attitude into a tool that can be used deliberately. This is a very basic lesson which is introduced right at the beginning so that the PMI process itself can be used as a tool in the course of subsequent lessons. Instead of just deciding whether or not you like an idea, this thinking operation has you make an effort to find the good points (P=Plus), the bad points (M=Minus) and the interesting points (I=Interesting) about an idea. The interesting points are those which are neither good nor bad but are worth noticing. The PMI is a way of treating ideas, suggestions and proposals. The natural reaction to an idea is to like or dislike it, to approve or disapprove. If you like an idea, it is very unnatural to look for the negative or minus aspects. If you dislike an idea it is very unnatural to look for the positive or plus aspects. It is equally unnatural to pick out the merely interesting aspects of an idea.

Using the PMI as a deliberate operation gives students a means of bypassing the natural emotional reaction to an idea. Their objectives change from emotional reactions to carrying out with skill a formal operation.

Once the PMI has been practised as a tool it can be asked for in subsequent lessons: "Do a PMI on that idea."

The PMI is never intended to prevent decision or commitment but to ensure that this happens after both sides of the matter have been considered and not before.

In simple terms the PMI operation enlarges the view of a situation; without it, emotional reaction to an idea narrows the way we look at it.

**P = Plus - The good things about an idea - why you like it
M = Minus - The bad things about an idea - why you don't like it
I = Interest - What you find interesting about an idea**

Instead of just saying that you like an idea, or don't like an idea, you can use a PMI. When you use a PMI you give the good points first, then the bad points and then the points that are neither good nor bad but are interesting. You can use a PMI as a way of treating ideas, suggestions and proposals.

APC: Alternatives, Possibilities, Choices



FOCUS ON ALTERNATIVES

APC is a crystallisation of the process of deliberately trying to find alternatives.

In taking action or making a decision there may seem to be few alternatives, but a deliberate effort to find alternatives can change the whole situation. The APC operation is an attempt to focus attention directly on exploring all the alternatives or choices or possibilities - beyond the obvious ones.

In looking at a situation it is unnatural to go beyond an explanation which seems satisfactory and yet there may be other possibilities which may be even more likely if only an effort is made to find them. The most likely alternative is not necessarily the most obvious.

This deliberate search for alternatives applies not only to action but also to explanations. When an obvious explanation presents itself it is very unnatural to look beyond it to try and find other possible explanations. That is why it is useful to have a device which can take one beyond natural inclinations

The APC is an antidote to emotional reaction. Whenever a student seems to be looking at something in a rigid way he/she can be asked to do an APC. If the student can do this then the result is either a change in view or an adherence to the original view now, however, due to preference. APC can be applied to other subjects.

As in the CAF lesson the emphasis in teaching is on what has been left out. That is to say the groups try to find different alternatives and choices for the same situation to demonstrate that even when you are sure that there cannot be any other possibilities you may still find some if you make a deliberate effort to look for them. As with the CAF lesson it is all too easy to suppose that one naturally looks at all possible alternatives anyway - but it is not true. To go beyond the obvious and the satisfactory possibilities one needs a deliberate device like the APC.

APC = Alternatives, Possibilities, Choices

When you have to make a decision or take action, you may at first think that you do not have all the choices at your disposal. But if you look for

OPV: Other People's Views



THE OTHER PEOPLE INVOLVED

OPV is a crystallisation of the process of looking at other people's viewpoints so that the process can be used consciously and deliberately

In the preceding nine lessons the enlargement of the situation - the broadening of perception - has always been from the point of view of the thinker. But many thinking situations involve other people as well. The point of view of these other people is also an essential part of the enlargement of the situation which is the basic theme of these first ten lessons. Thus another person may have different objectives, different priorities, different alternatives, etc. In fact, when another person does a PMI, CAF, C&S, AGO, FIP, or APC he or she may come up with different ideas because he or she is in a different position.

Being able to look at and understand another person's point of view may be a very important part indeed of the thinking process, and so a deliberate effort may have to be made to see another point of view. This deliberate effort is the OPV. It may apply to another person's point of view or to other people's points of view in general.

Like many of the previous operations OPV as a tool can be applied in different subject areas. It may be applied by itself or it may be applied in conjunction with another operation. "Do an OPV-AGO for the other person."

Once students can escape from their own points of view they can take other people into consideration. They may even come up with useful new ways of looking at a situation.

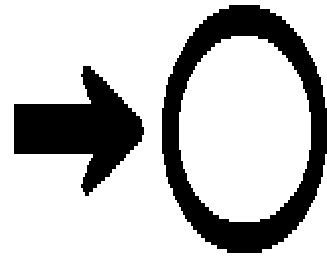
The OPV is an antidote to selfishness. Instead of a general vague feeling that other people's points of view matter there is a deliberate attempt to see another person's point of view.

In teaching the emphasis must be on how the view of another person in the same situation may be entirely different. It is the possible difference between points of view that matters here. If it is assumed that any sensible person would have the same point of view in a given situation then no effort at all will be made to see other points of view.

OPV = Other People's Views

Many thinking situations involve other people. What these other people think is just as much part of the situation as the factors, the consequences, the objectives etc. These other people may have a very different viewpoint.

**AGO: Aims, Goals,
Objective**



FOCUS ON PURPOSE

In some situations, it is more appropriate to speak of aims, in other circumstances or goals, and in yet others of objectives. The main point of the lesson is to introduce and emphasise the idea of purpose. No attempt should be made to bring out the philosophical differences between these since this usually confuses students.

This notion of purpose broadens the perception of a situation. The AGO is a device to get students to focus directly and deliberately on the intention behind actions. What is the actor aiming for? What is trying to be achieved? What does the actor want to bring about? What are the actor's objectives? What are the actor's goals?

Being able to define objectives helps the student's thinking in such areas as decision, planning, and action of any kind which has a purpose.

It is enough for the teacher to say that in some cases the word aim is more appropriate and in other cases goals or objectives. If pressed, teachers can make the distinction as follows:

- aim is the general direction**
- goal is an ultimate destination**
- objective is a recognisable point of achievement along the way**

Teachers are strongly advised to concentrate on the general idea of "purpose" and not to make the distinction without a sense of purpose, all actions are either reactions to a situation or matters of habit or imitation.

The intention of the lesson is to focus attention directly on purpose as distinct from reaction.

AGO - Aims, Goals, Objectives

You can do something out of habit, because everyone else is doing it, or as a reaction to a situation. These are all 'because' reasons. But there are times when you do something 'in order to' achieve some purpose or objective. It can help your thinking if you know exactly what you are trying to achieve. It can also help you to understand other people's thinking if you can see their objectives. In certain situations the words 'aims' and 'goals' are more appropriate than objectives, but the meaning is the same.

C&S: Consequence and Sequel



FOCUS ON THE CONSEQUENCES

C&S is a crystallisation of the process of looking ahead to see the consequences of some action, plan, decision, rule, invention etc.

For some people, thinking ahead may always be part of doing a CAF, but it is worth emphasising this process more directly since consequences do not exist until you make an effort to foresee them, whereas factors are always present at the moment. CAF is primarily concerned with factors that are operating at the moment and on which a decision is based, whereas C&S deals with what may happen after the decision has been made. There are immediate consequences as well as short-term (1-2 years), medium-term (2-5 years) and long-term consequences (over 5 years).

C&S is concerned with action of some sort, either the action that one intends to take oneself or the action that others are taking. The intention is to enlarge the view beyond the immediate effect of that action. An action may seem worthwhile if the immediate effect is good but if one makes a deliberate effort to look at longer term consequences, the action may not be worthwhile at all. Conversely, an action that has good long-term consequences may not seem very enticing at the moment.

If CAF is thinking about a situation at the moment, then C&S is thinking ahead. Obviously, consequences also can turn up as part of a PMI, but the important point about a deliberate C&S is that attention is focused directly on the future.

C&S = Consequence and Sequel

In thinking about an action, the consequences should always be considered:

Immediate consequences

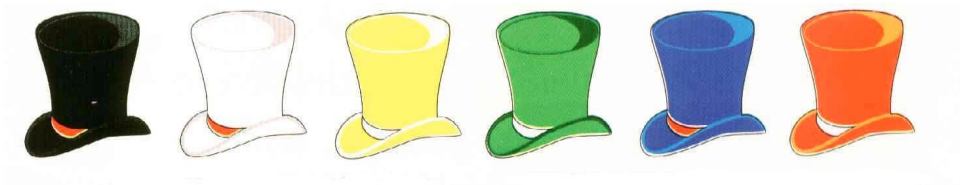
Short-term consequences - (1 - 2 years)

Medium - term consequences - (2 - 5 year)

Long-term consequences - (over 5 years)

The time concept is regulated by the thinking task involved that one has always to look in the future.

Edward de Bono 6 Thinking Hats



The 'Six Thinking Hats' is perhaps one of the most popular and effective thinking methodologies developed by Dr Edward de Bono. The 'Hats' are used in all manner of enterprise and indeed from Kindergartens to the Board rooms of major companies. The Six Thinking Hats provide the framework from parallel thinking and the avoidance of time wasting argument while at the same time incorporating reference to the renowned 'Lateral Thinking' processes and with the potential to be substantially enhanced by the use of the thinking tools 1.htm found in the CoRT Thinking Lessons.

SIX THINKING HATS CONCEPT

"Thinking is divided into six different modes"

When we attempt practical thinking, there are three fundamental difficulties:

1. **Emotions.** We often have a tendency not to think at all but to rely on instant gut feeling, emotion, and prejudice as a basis for action.
2. **Helplessness.** We may react with feelings of inadequacy: "I don't know how to think about this. I don't know what to do next."
3. **Confusion.** We try to keep everything in mind at once, with a mess as a result.

The six thinking hats method is a simple and practical way of overcoming all three difficulties.

Emotions are an important part of thinking and, in the end, all decisions and choices are made on the basis of our feelings. Emotions at the right place in thinking are essential. Emotions at the wrong place can be disastrous. The six hats method allows us to use emotions and feelings at the right place.

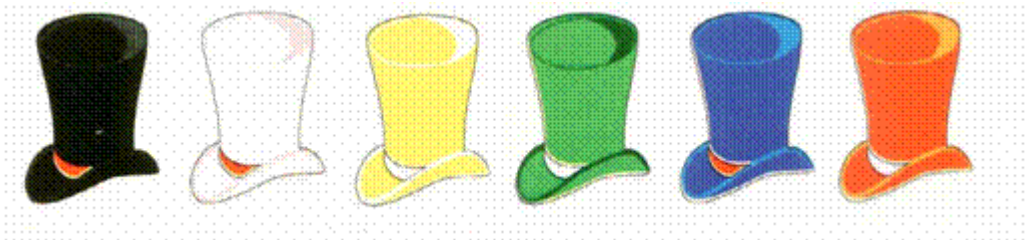
Helplessness arises when we do not have any general purpose thinking actions that can be taken. The six hats method provides us with a basic framework for thinking actions. There are now definite "next steps" that can be taken.

Confusion arises when we try to do too much at once. Often when we try to think about something, our minds go off in several different directions at the same time. The six hats method allows us to take one direction at a time.

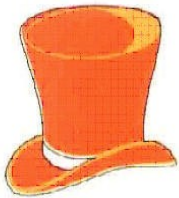
Full Colour Thinking, One Colour at a Time

Six Colours, Six Hats -

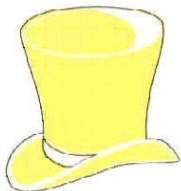
In the six hats method, thinking is divided into six different modes, each of which is represented by a different colour hat. A brief description of each mode is given here. A full description for each will be provided later.



The Six Thinking Hats



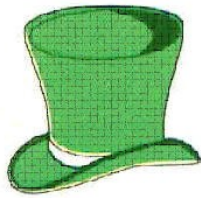
Red Hat. Emotions. Intuition, feelings, and hunches. No need to justify the feelings. How do I feel about this right now?



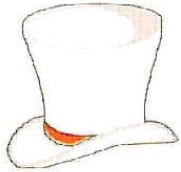
Yellow Hat. Benefits. Why is this worth doing? What are the benefits? Why can it be done? Why will it work?



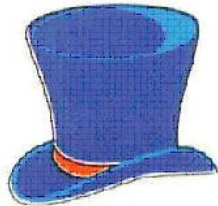
Black Hat. Caution. Judgement. Assessment. Is this true? Will it work? What are the weaknesses? What is wrong with it?



Green Hat. Creativity. Different ideas. New ideas. Suggestions and proposals. What are some possible solutions and courses of action? What are the alternatives?



White Hat. Information. Questions. What information do we have? What information do we need to get?



Blue Hat. Organisation of thinking. Thinking about thinking. How far have we come? What step do we take next?

It is possible to suggest many further hats for different aspects of thinking. However, I believe that the six hats are enough. More hats would be cumbersome and confusing. Fewer would be inadequate.

Hats and Role-playing

Why hats? There is a traditional association between thinking and hats.

"I've got my thinking cap on."

"Let's put on our thinking hats here."

A hat is very simple to put on and to take off. No other piece of clothing can be put on or taken off so quickly and easily. This is relevant because we must be able to put on or take off the different coloured hats with ease.

Also, hats often indicate a role. Soldiers can wear special helmets. The police may wear hats to indicate their role. In some countries, judges wear special headpieces. So as we put on a thinking hat, we take on the role indicated by that particular hat.

Switching Roles

It is very important that every thinker must be able to switch roles: put hats on, take hats off. The hats are not meant to put people into categories. It is totally wrong to say, "She's a green hat thinker" or "He only uses the red hat." Although these may be accurate assessments, if we start to use the hats as categories, then people only want to use the thinking associated with a particular category: "I am a black hat thinker." This is exactly the opposite of the purpose and value of the six hats method, which is to get people to use all six modes of thinking.

Detaching the Ego

One of the great limiting factors in thinking is that our egos are much too involved in our thinking. Our egos get attached to an idea or an argument. We cannot stand back in order to be objective. The role-playing of the six hats method allows you to detach your ego from the thinking.

"My black hat (yellow, green, etc.) thinking suggests this."

It is in this way that the six hats method takes the ego out of thinking.

Getting Beyond Argument

Normally, if we think an idea is not workable, we will spend all our time arguing against it. With the six hats method, we can learn to put on the yellow hat. In doing so, we now show that, even though the idea seems useless, some good may be found in it.

Instead of taking the position, "This is what I think and I know I am right," we can learn to use a broader spectrum of thinking.

Thus we can develop a pride in the skill of carrying out the different thinking roles. As a result, our thinking about any matter is more comprehensive and more objective.

With the six hats method, if we do not like a suggestion, we know that there will always be a chance to criticise that idea with the black hat and to express feeling with the red hat. Meanwhile, it is possible to explore the idea with white, yellow, and green hats as well.

Four Uses of the Hats

Put the hat on. We can ask a colleague or staff member in a discussion to put on a particular colour hat. Or we can ask a whole group to use a particular colour hat for a few minutes.

"Give me your black hat thinking on this idea. What could go wrong if we try out this idea?"

"We're stuck. Why don't we put on the green hat and generate some new ideas about this problem?"

"What are the facts about this? What do we know about this? Let's have some white hat thinking."

Take the hat off. We can ask a person or a group to take off a particular colour of hat. Here we are implying that the thinking that is taking place is of a certain type. We are asking a person to move away from that type of thinking. The six hats system provides a convenient method for this. Someone may not have consciously put on a hat but seems to be using one.

"We seem to have focused on red hat thinking. Let's take off the red hat for a moment."

"Okay, that's good black hat thinking. Let's lay aside the black hat for now."

"You've thought of lots of new ideas and possibilities—we have plenty now. So let's take off our green hats at this point."

Switch hats. Once the rules have been established, we can ask for an instant switch in thinking. We can accomplish this by suggesting that a colleague take off one hat and put on another. This way we can call for a switch in thinking without offending that person. We are not attacking the thinking that is taking place but asking for a change.

"We've heard the good things. Now let's switch from the yellow hat to the black hat. Where might we run into trouble if we do it this way?"

"With your black hat, you've said why this idea might not work. Now let's switch to the green hat to see if we can fix the problems."

"That's an interesting idea. Now let's take off the green hat and put on the white. We need to outline the facts."

Signal your thinking. We can name a hat to show the type of thinking that we are going to use. For instance, sometimes something needs to be said but is difficult to say without giving offence. Just saying that you are putting on the black hat makes it possible to discuss an idea without attacking the person who offered it. Use the hats yourself—and point out that you are using them as you teach them to others.

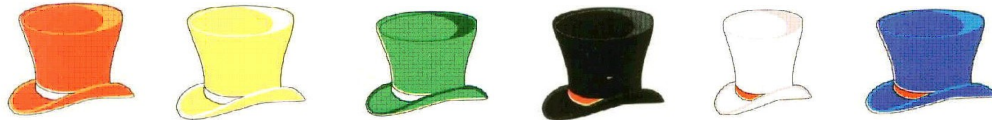
"Putting on my black hat, I'm thinking that it won't work to change the schedule now because we've already mailed it out."

"Putting on my red hat for a moment, I must say that I don't like these new math books as well as the old ones."

"I've got a green hat idea about applying for that grant. Tell me what you think about this suggestion."

In summary, we can ask others to put on, take off, switch, or signal hats. We can also put on or take off a hat ourselves. The formality and "game" aspect of the method are its greatest virtues. People learn to play the game.

Single Hat and Sequence Use



The hats can be used singly at any point in thinking. In general, this is the major use. The hats are used as a convenience for directing thinking and for switching thinking. Simple sequences of two or three hats may be used together for a particular purpose. For example, the yellow hat followed by the black hat may be used to assess an idea. The black hat followed by the green hat may be used to improve a design (point out the faults and overcome them). A full sequence of hats may be used as a framework for thinking about a subject. This framework is set up in advance as a program for thinking—a thinking agenda. The thinkers then follow the steps of that program.



The Unique

Blue Hat

The blue hat is different from the other hats because it is involved with directing the thinking process itself. We are actually using the blue hat whenever we suggest the next hat to be used. The blue hat need not be acknowledged at every turn. It can become awkward to say, for instance,

"Putting on my blue hat, I believe we should have some black hat thinking." However, there are some points at which it is often helpful to mention the blue hat. Three such points are at the outset of a discussion, to describe a thinking plan; at midpoint, to restate the thinking goals; and at the end, to summarise what thinking has been done.

"Let's use the blue hat to decide what we want to think about and which hats we'll need to use."

"This is interesting but I think we're drifting away from our goal. I'll put on my blue hat briefly to restate the goal."

"I want to put on my blue hat here and ask if we can come to a conclusion."

Use of the blue hat need not be confined to talking about the other hats. Any thinking steps at all can be suggested.

Six Hats for Richer Thinking

The six hats method allows us to think more richly and more comprehensively. If we simply ask others to think about something, they are often at a loss. But if they are invited to explore the subject using the framework of the hats, their perceptual powers are quickly expanded.

